

EAST Search History

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|---|--|------------------|---------|------------------|
| L1 | 2 | ("5789773").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/04/19 09:05 |
| S1 | 873 | @ad<="20021231" and (257/79).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:01 |
| S2 | 227 | @ad<="20021231" and (257/43).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:48 |
| S3 | 951 | @ad<="20021231" and (257/200-201).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:49 |
| S4 | 247 | @ad<="20021231" and (257/189).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:50 |
| S5 | 347 | @ad<="20021231" and (257/101).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:51 |
| S6 | 972 | @ad<="20021231" and (257/80-81).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:50 |
| S7 | 315 | @ad<="20021231" and (257/86-87).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:51 |
| S8 | 564 | @ad<="20021231" and (257/96).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:59 |
| S9 | 418 | @ad<="20021231" and (257/102).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:52 |

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| S10 | 2 | @ad<="20021231" and 'light emitting diode' and 'cladding layer' same 'AlZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:54 |
| S11 | 1 | "5760422".PN. | USPAT; USOCR | OR | ON | 2004/12/14 13:57 |
| S12 | 1 | "5739553".PN. | USPAT; USOCR | OR | ON | 2004/12/14 13:57 |
| S13 | 1 | "5614734".PN. | USPAT; USOCR | OR | ON | 2004/12/14 13:57 |
| S14 | 1 | "5563422".PN. | USPAT; USOCR | OR | ON | 2004/12/14 13:57 |
| S15 | 6 | (("6207972") or ("5717226") or ("5789768")).PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/12/14 13:58 |
| S16 | 874 | @ad<="20021231" and (257/94).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 13:59 |
| S17 | 741 | @ad<="20021231" and (257/E33.027)".ccls" or (257/E33.064).ccls. or (257/E33.067).ccls. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:05 |
| S18 | 4 | "2001036131" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:07 |
| S19 | 3 | "2001044503" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:08 |
| S20 | 26 | @ad<="20021231" and 'light-emitting diode' and 'contact' with 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:43 |
| S21 | 1 | @ad<="20021231" and 'light-emitting diode' and 'AlZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 14:52 |
| S22 | 269 | @ad<="20021231" and 'LED' and 'Zn' adj1 'O' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 18:04 |

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| S23 | 33 | @ad<="20021231" and 'light-emitting diode' and 'Zn' adj1 'O' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:28 |
| S24 | 18 | @ad<="20021231" and 'light-emitting diode' and 'aluminum zinc oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:30 |
| S25 | 1 | "5488235".PN. | USPAT; USOCR | OR | ON | 2004/12/14 14:32 |
| S26 | 1 | "5281830".PN. | USPAT; USOCR | OR | ON | 2004/12/14 14:33 |
| S28 | 344 | @ad<="20021231" and Lee.-in. and 'Light-emitting diode' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 14:34 |
| S30 | 183 | @ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:02 |
| S31 | 112 | @ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'Zinc Oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:21 |
| S32 | 144 | @ad<="20021231" and 'Light emitting diode' and 'contact' and 'cladding' and 'active' and 'Zinc Oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 17:40 |
| S33 | 1 | "6204512".PN. | USPAT; USOCR | OR | ON | 2004/12/14 15:55 |
| S34 | 1 | "6121127".PN. | USPAT; USOCR | OR | ON | 2004/12/14 15:59 |
| S35 | 1 | "6078064".PN. | USPAT; USOCR | OR | ON | 2004/12/14 15:59 |
| S36 | 2 | @ad<="20021231" and 'LED' and 'contact' and 'clad' and 'active' and 'Zinc Oxide' and 'schottky diode' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:27 |
| S37 | 0 | @ad<="20021231" and 'LED' and 'schottky diode' same 'window' same 'zinc oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:28 |

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| S38 | 0 | @ad<="20021231" and 'schottky diode' same 'window contact' same 'zinc oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:28 |
| S39 | 2 | @ad<="20021231" and 'schottky diode' same 'contact' same 'zinc oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:29 |
| S40 | 3 | @ad<="20021231" and 'schottky diode' and 'contact' with 'zinc oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:33 |
| S41 | 22 | @ad<="20021231" and 'schottky diode' and 'zinc oxide' and 'window' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 16:33 |
| S42 | 1 | "6225648".PN. | USPAT; USOCR | OR | ON | 2004/12/14 16:49 |
| S43 | 75 | @ad<="20021231" and 'Light emitting diode' and 'contact' and 'clad' and 'active' and 'Zinc Oxide' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 17:41 |
| S44 | 42 | @ad<="20021231" and 'Light emitting diode' and 'contact' and 'clad' and 'active' and 'Zinc Oxide' and 'barrier' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 17:41 |
| S45 | 2 | ("5048035").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/12/14 17:50 |
| S46 | 2 | ("5789768").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2004/12/14 17:50 |
| S47 | 7 | @ad<="20021231" and 'LED' and 'contact layer' with 'zinc oxide' and 'cladding' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 18:05 |
| S48 | 3 | @ad<="20021231" and 'schottky' and 'contact layer' with 'zinc oxide' and 'cladding' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/14 18:05 |

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| S49 | 1 | "6225648".PN. | USPAT; USOCR | OR | ON | 2004/12/14 18:10 |
| S50 | 1 | "6072203".PN. | USPAT; USOCR | OR | ON | 2004/12/14 18:10 |
| S51 | 1 | "5821569".PN. | USPAT; USOCR | OR | ON | 2004/12/14 18:11 |
| S52 | 30 | @ad<="20021231" and 'LED' and 'contact' and 'cladding' and 'active' and 'sheet resistance' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:54 |
| S53 | 6 | @ad<="20021231" and 'Light emitting diode' and 'cladding' and 'active' and 'sheet resistance' with 'omega' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:47 |
| S54 | 8 | @ad<="20021231" and 'diode' and 'nitride' same 'implant' and 'sheet resistance' with 'omega' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:52 |
| S55 | 14 | @ad<="20021231" and 'sheet resistance' same 'nitride compound' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:55 |
| S56 | 1 | @ad<="20021231" and 'sheet resistance' same 'InGaAlP' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 09:57 |
| S57 | 4 | @ad<="20021231" and 'sheet resistance' same 'AlGaNp' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:03 |
| S58 | 1 | @ad<="20021231" and 'sheet resistance' same 'InGaAlP' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:04 |
| S59 | 3 | @ad<="20021231" and 'Al' near1 'Ga' near1 'As' near1 'P' same 'resistance' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:08 |
| S60 | 2 | @ad<="20021231" and 'resistance' same In near1 Ga near1 Al near1 P | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:08 |

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| S61 | 5 | @ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'Al' near1 'As' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:08 |
| S62 | 4 | @ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'Al' near1 'N' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:53 |
| S63 | 7 | @ad<="20021231" and 'resistance' same 'In' near1 'Ga' near1 'As' near1 'P' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:08 |
| S64 | 27 | @ad<="20021231" and 'resistance' same 'InGaAIN' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:09 |
| S65 | 27 | @ad<="20021231" and 'resistance' same 'InGaAIN' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:09 |
| S66 | 142 | @ad<="20021231" and 'cladding layer' same 'AlGaAs' with 'GaP' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:54 |
| S67 | 92 | @ad<="20021231" and 'cladding layer' with 'AlGaAs' with 'GaP' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 11:01 |
| S68 | 3 | @ad<="20021231" and 'cladding layer' with 'AlGaAs' with 'GaP' same 'dopant' with 'Zn' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 10:54 |
| S71 | 3 | @ad<="20021231" and 'cladding layer' with "Al.sub.xGa.sub.yAs" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 11:20 |
| S72 | 29 | @ad<="20021231" and 'cladding layer' with 'AlGaNp' with 'AlGaAs' with 'GaP' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 11:21 |
| S73 | 0 | @ad<="20021231" and 'cladding layer' with 'AlGaNp' with 'AlGaAs' with 'GaP' with 'Zn doping' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 09:24 |

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| S74 | 2 | @ad<="20021231" and 'cladding layer' with 'AlGaInP' with 'AlGaAs' with 'GaP' with 'Zn' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:09 |
| S75 | 15 | @ad<="20021231" and 'AlGaAs' with 'Zn' with 'doping' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:21 |
| S76 | 166 | @ad<="20021231" and 'AlGaInP' with 'Zn' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:21 |
| S77 | 9 | @ad<="20021231" and 'AlGaInP' with 'Zn dopant' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:53 |
| S79 | 31 | @ad<="20021231" and 'light emitting diode' same 'ZnO' with 'Al' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:57 |
| S80 | 0 | @ad<="20021231" and 'light emitting diode' same 'ZnO' with 'Al' with '%' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:59 |
| S81 | 228 | @ad<="20021231" and 'ZnO' with 'Al' with '%' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 13:58 |
| S82 | 9 | @ad<="20021231" and 'light emitting diode' and 'ZnO' with 'Al' with '%' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:02 |
| S83 | 75 | @ad<="20021231" and 'Al doped ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:02 |
| S84 | 416 | @ad<="20021231" and Udagawa-takashi.in. | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:44 |
| S85 | 78 | @ad<="20021231" and Udagawa-takashi.in. and 'light emitting diode' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:41 |

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| S86 | 7 | @ad<="20021231" and Udagawa-takashi.in. and 'ZnO' and 'window layer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:46 |
| S87 | 12 | @ad<="20021231" and Udagawa-takashi.in. and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2004/12/15 14:46 |
| S88 | 19 | @ad<="20021231" and 'surface' with 'LED' and 'contact' and 'cladding' same 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:26 |
| S89 | 1 | "5488235".PN. | USPAT; USOCR | OR | ON | 2005/06/10 08:11 |
| S90 | 1 | "5281830".PN. | USPAT; USOCR | OR | ON | 2005/06/10 08:12 |
| S91 | 77 | @ad<="20031231" and Udagawa-takashi.in. and 'LED' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:29 |
| S92 | 1 | @ad<="20031231" and 'Al' adj1 'Ga' adj1 'In' adj1 'P' and 'light emitting diode' and ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:31 |
| S93 | 3 | @ad<="20031231" and 'Al' adj1 'Ga' adj1 'In' adj1 'P' and ('light emitting diode' or 'laser') and ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:34 |
| S94 | 300 | @ad<="20031231" and 'AlGaNp' and ('light emitting diode' or 'laser') and ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:35 |
| S95 | 9 | @ad<="20031231" and 'AlGaNp' and ('light emitting diode' or 'laser') and 'clad' same ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:44 |
| S96 | 89 | @ad<="20031231" and 'AlGaNp' and 'laser' and 'window' and ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:44 |
| S97 | 16 | @ad<="20031231" and 'AlGaNp' and 'laser' and 'window' same ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:50 |

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| S98 | 3 | @ad<="20031231" and 'AlGaNp' and 'laser' and 'clad' same 'window' same ('Zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 08:50 |
| S99 | 2 | @ad<="20021231" and 'cladding' with 'AlGaNp' same 'p doping' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/06/10 09:25 |
| S100 | 2 | "20040262620" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:21 |
| S101 | 19 | @ad<="20021231" and 'surface' with 'LED' and 'contact' and 'cladding' same 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:26 |
| S102 | 42 | @ad<="20021231" and ('LED' or 'light emitting diode') and 'cladding' with 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:32 |
| S103 | 39 | @ad<="20021231" and ('LED' or 'light emitting diode') and 'clad layer' with ('zinc oxide' or 'ZnO') | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:33 |
| S104 | 51 | @ad<="20021231" and ('LED' or 'light emitting diode') and ('zinc oxide' or 'ZnO') with 'cladding' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 08:33 |
| S105 | 39 | @ad<="20021231" and ('LED' or 'light emitting diode') and ('zinc oxide' or 'ZnO') with 'clad layer' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 09:11 |
| S106 | 1 | "5670798".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:36 |
| S107 | 1 | "5617446".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:37 |
| S108 | 1 | "5567646".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:42 |
| S109 | 1 | "5477063".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:42 |
| S110 | 1 | "5404027".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:43 |
| S111 | 1 | "5488235".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:44 |

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| S11 2 | 1 | "5281830".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:44 |
| S11 3 | 1 | "6456640".PN. | USPAT; USOCR | OR | ON | 2005/10/12 08:59 |
| S11 4 | 1 | "6410162".PN. | USPAT; USOCR | OR | ON | 2005/10/12 09:00 |
| S11 5 | 1 | "6153010".PN. | USPAT; USOCR | OR | ON | 2005/10/12 09:00 |
| S11 6 | 1 | "6057561".PN. | USPAT; USOCR | OR | ON | 2005/10/12 09:00 |
| S11 7 | 1 | "5889295".PN. | USPAT; USOCR | OR | ON | 2005/10/12 09:01 |
| S11 8 | 45 | @ad<="20021231" and 'laser' and 'ZnO' same 'doped al' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 10:41 |
| S11 9 | 69 | @ad<="20021231" and 'laser' and 'Al' near 'doped' near 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 10:46 |
| S12 0 | 74 | @ad<="20021231" and ('laser' or 'diode')and 'Al' near 'doped' near 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 10:55 |
| S12 1 | 74 | @ad<="20021231" and ('laser' or 'diode') and 'Al' near 'doped' near 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 10:55 |
| S12 3 | 430 | @ad<="20021231" and 'laser' and 'cladding layer' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 10:56 |
| S12 4 | 218 | @ad<="20021231" and 'laser' and 'clad layer' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 11:50 |
| S12 5 | 2 | 'JP 11206039' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 11:14 |
| S12 6 | 2 | 'JP 2001036131' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 11:14 |

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| S12 7 | 1 | @ad<="20021231" and 'current spreading' near5 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 11:51 |
| S12 8 | 125 | 'current spreading' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 11:58 |
| S12 9 | 34 | 'current' near 'constriction' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 12:09 |
| S13 0 | 1 | 'current' near 'constriction' near 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 12:09 |
| S13 1 | 476 | 'Udagawa takashi' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:37 |
| S13 2 | 14 | 'Udagawa takashi' and 'ZnO' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:41 |
| S13 3 | 87 | 'Udagawa takashi' and 'LED' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:41 |
| S13 4 | 109 | 'Udagawa-takashi' and 'light emitting diode' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:41 |
| S13 5 | 109 | 'Udagawa takashi' and 'light emitting diode' | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2005/10/12 13:53 |
| S13 6 | 2 | ("6597716").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/12 13:53 |

EAST Search History

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|----------|------|--|---|----|----|------------------|
| S13 7 | 0 | @ad<="20021231" and Al adj1 "ZnO" same ("current expansion" or "current constricting") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:36 |
| S13 8 | 0 | @ad<="20021231" and Al adj1 "ZnO" same "current expansion" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:01 |
| S13 9 | 0 | @ad<="20021231" and Al adj1 "ZnO" same "current constricting" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:01 |
| S14 0 | 8 | @ad<="20021231" and "ZnO" same ("current expansion" or "current constricting") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:10 |
| S14 1 | 0 | @ad<="20021231" and "ZnO" same "current expansion" and "current constricting" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:02 |
| S14 3 | 6 | @ad<="20021231" and ("LED" or "light emitting diode") same "current expansion" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:16 |
| S14 4 | 0 | @ad<="20021231" and ("LED" or "light emitting diode") and "current expansion" same "ZnO" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:18 |
| S14 5 | 0 | @ad<="20021231" and ("LED" or "light emitting") and "current expansion" same (conductive with "ZnO" or "zinc oxide") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:21 |
| S14 6 | 1075 | @ad<="20021231" and ("LED" or "light emitting") same (conductive with "ZnO" or "zinc oxide") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:22 |
| S14 7 | 441 | @ad<="20021231" and ("LED" or "light emitting") with (conduct\$3 with "ZnO" or "zinc oxide") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:45 |
| S14 8 | 21 | @ad<="20021231" and ("LED" or "light emitting") same (conductive with "ZnO" or "zinc oxide") same cladd\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:23 |

EAST Search History

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|----------|------|--|---|----|----|------------------|
| S14 9 | 21 | @ad<="20021231" and ("LED" or "light emitting") same (conduct\$3 with "ZnO" or "zinc oxide") same cladd\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:23 |
| S15 0 | 8 | @ad<="20021231" and ("LED" or "light emitting") and conduct\$3 with ("ZnO" or "zinc oxide") same cladd\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:29 |
| S15 1 | 527 | @ad<="20021231" and ("LED" or "light emitting") and conduct\$3 near3 ("ZnO" or "zinc oxide") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:29 |
| S15 2 | 127 | @ad<="20021231" and ("LED" or "light emitting") and conduct\$3 near1 ("ZnO" or "zinc oxide") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:29 |
| S15 4 | 2190 | @ad<="20021231" and ("LED" or "light emitting") and ("ZnO" or "zinc oxide") with conduct\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:30 |
| S15 5 | 0 | @ad<="20021231" and ("ZnO" or "zinc oxide") same ("current expans\$3" or "current spread\$4") | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:38 |
| S15 6 | 0 | @ad<="20021231" and ("ZnO" or "zinc oxide") same "current spread\$3" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:38 |
| S15 7 | 5 | @ad<="20021231" and ("ZnO" or "zinc oxide") same "current spreading" | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:38 |
| S15 8 | 1 | "5488235".PN. | USPAT; USOCR | OR | ON | 2006/04/17 15:43 |
| S15 9 | 1 | "5281830".PN. | USPAT; USOCR | OR | ON | 2006/04/17 15:43 |
| S16 0 | 1 | "5488235".PN. | USPAT; USOCR | OR | ON | 2006/04/17 15:44 |
| S16 1 | 340 | @ad<="20021231" and ("LED" or "light emitting") same current adj1 spread\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 15:46 |

EAST Search History

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|----------|----|---|---|----|-----|------------------|
| S16 2 | 92 | @ad<="20021231" and ("LED" or "light emitting") same current adj1 (spread\$3 or expan\$5) same cladd\$3 | US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB | OR | ON | 2006/04/17 16:15 |
| S16 3 | 2 | ("5,789,768").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/04/17 16:15 |